

CLAIMS:

SUB A, > 1. A polymer composition suitable for use as a capstock composition comprising a blend of:

5 a melt extrudable acrylic polymer component which comprises more than 50% by weight, based on the weight of the acrylic component, of a high molecular weight acrylic polymer having a molecular weight in the range of from about 150,000 to about 350,000, on a number average basis, and up  
10 to 50% by weight, based on the weight of the acrylic polymer component, of a low molecular weight acrylic polymer having a molecular weight of from about 10,000 to about 100,000, on a number average basis;

15 from 10% to 50% by weight of the composition of a halogen donor component;

an effective amount of a halogen volatilisation agent; and

20 a char-inducing component which induces formation of a char upon application of flame to the composition.

2. A polymer composition according to claim 1, wherein the acrylic polymer component comprises from 40 to 75% by weight of the composition.

25 3. A polymer composition according to claim 1 or claim 2, further comprising a pigment for imparting colour to the material.

30 4. A polymer composition according to any one of claims 1 to 3, wherein the halogen donor component comprises a halogen-containing polymer which has a K value of from about 50 to about 65.

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5. A polymer composition according to any one of claims 1 to 4, wherein the halogen donor component comprises polyvinyl chloride.

5 6. A polymer composition according to any one of claims 1 to 5, wherein the char-inducing component comprises a blend of vitreous materials which exhibits a broad melting range of from about 350°C up to about 800°C and which devitrifies at temperatures in the range of from about 800° to about  
10 900°C.

7. A polymer composition according to any one of claims 1 to 5, wherein the char-inducing component comprises zinc borate, zinc stannate, or a mixture thereof.

15 8. A polymer composition according to any one of claims 1 to 7, wherein the amount of the char-inducing component ranges from about 2% by weight up to about 15% by weight of the composition.

20 9. A polymer composition according to any one of claims 1 to 8, comprising a blend of:  
from 40 to 75% by weight of the composition of the melt extrudable acrylic polymer component;  
25 from 10% to 30% by weight of the composition of a polyvinyl chloride which has a K value of from about 50 to about 65 as a halogen donor component;  
from 3% to 8% by weight of the composition of sodium antimonate or antimony trioxide as a halogen volatilisation  
30 agent; and  
from 2% to 15% by weight of the composition of at least one zinc salt selected from zinc stannate and zinc borate as a char-inducing component.

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10. A polymer laminate comprising a base material and a coat of a capstock polymer composition comprising a blend of:

a melt extrudable acrylic polymer component;

5 from 10% to 50% by weight of the composition of a halogen donor component;

an effective amount of a halogen volatilisation agent;

and

10 a char-inducing component which induces formation of a char upon application of flame to the composition.

11. A polymer laminate according to claim 10, wherein the acrylic polymer component comprises from 40 to 75% by weight of the composition.

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12. A polymer laminate according to claim 10 or claim 11, wherein the acrylic polymer component comprises at least a major amount of a high molecular weight acrylic polymer that has a molecular weight of from about 100,000 to about

20 500,000.

13. A polymer laminate according to claim 12, wherein the acrylic polymer component comprises more than 50% by weight, based on the weight of the acrylic component, of a high

25 molecular weight acrylic polymer having a molecular weight in the range of from about 150,000 to about 350,000, on a number average basis, and up to 50% by weight, based on the weight of the acrylic polymer component, of a low molecular weight acrylic polymer having a molecular weight of from

30 about 10,000 to about 100,000, on a number average basis.

14. A polymer laminate according to any one of claims 10 to 13, wherein the capstock polymer composition further

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comprises a pigment for imparting colour thereto.

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5 15. A polymer laminate according to any one of claims 10 to 14, wherein the halogen donor component comprises a halogen-containing polymer which has a K value of from about 50 to about 65.

10 16. A polymer laminate according to any one of claims 10 to 15, wherein the halogen donor component comprises polyvinyl chloride.

15 17. A polymer laminate according to any one of claims 10 to 16, wherein the char-inducing component comprises a blend of vitreous materials which exhibits a broad melting range of from about 350°C up to about 800°C and which devitrifies at temperatures in the range of from about 800° to about 900°C.

20 18. A polymer laminate according to any one of claims 10 to 16, wherein the char-inducing component comprises zinc borate, zinc stannate, or a mixture thereof.

25 19. A polymer laminate according to any one of claims 10 to 18, wherein the amount of the char-inducing component ranges from about 2% by weight up to about 15% by weight of the composition.

20 20. A polymer laminate according to any one of claims 10 to 19, wherein the capstock polymer composition comprises a blend of:

30 from 40 to 75% by weight of the composition of a melt extrudable acrylic polymer component;

from 10% to 30% by weight of the composition of a polyvinyl chloride which has a K value of from about 50 to

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about 65 as a halogen donor component;

from 3% to 8% by weight of the composition of sodium antimonate or antimony trioxide as a halogen volatilisation agent; and

5 from 2% to 15% by weight of the composition of at least one zinc salt selected from zinc stannate and zinc borate as a char-inducing component.

21. A polymer laminate according to any one of claims 10  
10 to 20, wherein the coat has a thickness of from about 40  $\mu\text{m}$  to about 500  $\mu\text{m}$ .

22. A polymer laminate according to any one of claims 10 to  
15 21, wherein the base material comprises polyvinyl chloride.

23. A building product comprising a polymer laminate  
according to any one of claims 10 to 22.

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